

In the Claims

Claims 1-11 (cancelled).

Claim 12 (currently amended): A method for conditioning a surface of a polishing pad after chemical-mechanical polishing of a semiconductor substrate with the polishing pad surface, comprising:

providing an apparatus which includes a steam outlet port proximate a conditioning stone;

positioning the polishing pad with the polishing pad surface against the conditioning stone and displacing the polishing pad relative to the ~~condition~~ conditioning stone to rub the polishing pad surface with the ~~condition~~ conditioning stone; and

flowing steam material through the steam outlet port and across the polishing pad surface as the polishing pad surface is rubbed with the conditioning stone; the material flowing through the steam outlet port containing steam, and an entirety of the material flowing through the steam outlet port being in vapor phase.

Claim 13 (currently amended): The method of claim 12 wherein the steam is jetted onto the polishing pad surface to impact the polishing pad surface with a pressure of from about 10 psig to about 20 psig.

Claim 14 (currently amended): The method of claim 12 wherein the steam has a temperature of at least about 200°F as it flows through the steam outlet port.

Claim 15 (currently amended): The method of claim 12 wherein the steam has a temperature of at least about 200°F as it flows through the steam outlet port, and wherein the steam impacts the polishing pad surface with a pressure of from about 10 psig to about 20 psig.

Claim 16 (currently amended): The method of claim 12 wherein ammonium is within the steam during the exposure of the polishing pad surface to the steam.

Claim 17 (currently amended): The method of claim 12 wherein ammonium citrate is within the steam during the exposure of the polishing pad surface to the steam.

Claim 18 (currently amended): The method of claim 12 wherein the chemical-mechanical polishing utilizes the polishing pad to polish a copper-containing material; and wherein ammonium is within the steam during the exposure of the polishing pad surface to the steam.

Claim 19 (currently amended): The method of claim 12 further comprising:
removing the polishing pad surface from against the conditioning stone to complete the conditioning of the polishing pad surface with the conditioning stone; and
after the conditioning of the polishing pad surface with the conditioning stone is completed, exposing the polishing pad surface to additional steam.

Claim 20 (currently amended): A method for chemical-mechanical polishing of a semiconductor substrate with a polishing pad surface and reconditioning the polishing pad surface, comprising:

providing a semiconductor substrate having a surface which is to be chemical-mechanical polished;

providing a polishing pad proximate the semiconductor substrate surface and utilizing a surface of the polishing pad to chemical-mechanical polish the semiconductor substrate surface;

providing an apparatus which includes a steam outlet port proximate a conditioning stone;

positioning the polishing pad with the polishing pad surface against the conditioning stone and displacing the polishing pad relative to the ~~condition~~ conditioning stone to rub the polishing pad surface with the ~~condition~~ conditioning stone; and

flowing ~~steam~~ material through the steam outlet port and across the polishing pad surface as the polishing pad surface is rubbed with the conditioning stone; the material flowing through the steam outlet port containing steam, and an entirety of the material flowing through the steam outlet port being in vapor phase.

Claim 21 (currently amended): The method of claim 20 wherein the steam is jetted onto the polishing pad surface from a plurality of nozzles generating overlapping spray patterns of the steam.

Claim 22 (currently amended): The method of claim 20 wherein the steam is jetted onto the polishing pad surface from a plurality of nozzles generating overlapping spray patterns of the steam; and wherein the nozzle spray patterns are fans in which the steam impacts the polishing pad surface at angles of from 0° to 45°.

Claim 23 (currently amended): The method of claim 20 wherein the steam is jetted onto the polishing pad surface from a plurality of nozzles.

Claim 24 (currently amended): The method of claim 20 wherein the steam is jetted onto the polishing pad surface to impact the surface with a pressure of from about 10 psig to about 20 psig.

Claim 25 (currently amended): The method of claim 20 wherein ammonium is within the steam during the exposure of the polishing pad surface to the steam.

Claim 26 (currently amended): The method of claim 20 wherein ammonium citrate is within the steam during the exposure of the polishing pad surface to the steam.

Claim 27 (currently amended): The method of claim 20 wherein the semiconductor substrate comprises a copper-containing material at the surface which is chemical-mechanical polished; and wherein ammonium is within the steam during the exposure of the polishing pad surface to the steam.

Claim 28 (currently amended): The method of claim 20 further comprising:

removing the polishing pad surface from against the conditioning stone to complete the conditioning of the polishing pad surface with the conditioning stone; and
after the conditioning of the polishing pad surface with the conditioning stone is completed, exposing the polishing pad surface to additional steam.

Claims 29-35 (canceled).